

Analysis of the Information Security Status of the Third-Party Payment Platform in China

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Abstract: In recent years, with the rapid growth of our social economy, the country's level of science and technology has been greatly improved. Especially at the moment when big data information technology is becoming more and more widely used, the e-commerce environment is becoming increasingly perfect. The rapid rise of Internet finance has gradually become an important pillar force of the financial industry because of financial finance, investment and payment realized by Internet finance, and other financial services promoted by Internet finance. Therefore, the Third-party payment platform, as a necessary carrier of Internet financial transactions, while ushering in new development opportunities, its information security problems are also revealed. This article starts with the analysis of the information security problems of China's third-party payment platform, and then explore how to improve the information security guarantee level of China's third-party payment platform.

1. Introduction

Under the context of China's e-commerce environment, people have paid great changes. Traditional transaction payment notes need to use currency and commodity services or currency transactions, namely we often say that entity transaction payment, and currently with the rapid development and expansion of the third-party payment platform, people only need to use mobile terminal equipment can complete the transaction need of payment behavior, payment is more convenient, for people's daily life and work has brought great convenience. Compared with the entity transaction payment, people in the Internet with merchants for electronic commerce transactions, consumers and merchants often based on the virtual characteristics of the Internet, and have a certain distrust, not only consumers fear their money into each other account after merchants do not deliver goods or services, merchants also worry about their goods or services after delivery consumers do not pay the corresponding money, and introduce the third-party payment platform as a medium between traders, can largely solve this problem. Therefore, the emergence and development of third-party payment platform is an inevitable trend. The technologies and fields involved in the third-party payment platforms are various and complex. This paper will study the current situation of the information security guarantee of the third-party payment platforms, and is committed to promoting the continuous progress of the information security guarantee level of the third-party payment platforms in China, and to create a more reliable e-commerce payment environment for users.

2. What is a third-party payment platform

2.1 The basic definition of the third-party payment platform

So-called third-party payment platform of the third party refers to the intermediate between the buyers and sellers, then the third-party payment platform is the intermediary relying on communication, computer and information security technology built can connect merchants and Banks, with electronic currency as the carrier of online payment, help all kinds of users and merchants to money payment, cash flow, capital clearing, query statistics and other financial behavior of electronic platform, therefore, the third-party payment platform is traders and Banks and other financial institutions transfer funds, and the payment medium between the buyer and the seller. From the point of the role of the third-party payment platform, the third-party payment platform is mainly for e-commerce buyers provide electronic exchange need payment services, therefore, the essence of the third-party payment platform is a service provider, such as we often use in life pay treasure, WeChat payment, etc., belong to the service providers in the payment market[1].

2.2 The transaction operation mode of the third-party payment platform

Third-party payment platform is established by having certain comprehensive strength and good faith of the third party enterprise with domestic and foreign Banks or financial institutions after, so not only can protect the interests of both buyers and sellers, and can make the third-party payment platform for various business activities under the supervision of Banks and other financial institutions, thus effectively restrain the third-party payment platform business behavior. In the process of transactions through the third-party payment platform, the buyer choose to purchase certain goods or services, need to use the third-party payment platform provided corresponding account payment behavior, third-party payment platform will notify the seller of the consumer payment to the buyer for delivery, finally, after the buyer confirmed the receipt of the third-party payment platform in the payment of the buyer to the seller's account.

2.3 The main characteristics of the third-party payment platform

Combined with the actual operation of the major third-party payment platforms in China, the third-party payment platform mainly has the following three characteristics: First, the third-party payment platform can provide users with a variety of application interfaces. Application interface is the key for users to realize payment behavior. In real life, users often do not use the bank card of a certain bank alone, and different users also hold different bank cards. Therefore, users need to connect with different banks when conducting payment behavior. Third-party payment platform for payment transaction settlement can be directly with the bank transaction interface, support of different Banks issued by various types of bank card, such as savings card, credit card, etc., so that not only can remove the user in multiple Banks to open multiple different accounts, and can provide users with more payment channels. Second, the third-party payment platform contains rich practical payment functions[2]. Third-party payment platform set up a variety of different types of payment module, such as life payment, mobile phone recharge and movie tickets, etc., these modules are closely related to the user's daily life, can allow the user to achieve never leave home to complete their required payment behavior, further enhance the user's payment experience, bring great convenience to the user's life. Third, the third-party payment platform is easy to use and easy to operate. Third-party payment platform is the electronic transaction payment mode, and often in the form of APP or website for users to use, combined with the platform is usually different types of bank card payment methods integrated into the same interface, therefore, the user only need to use mobile terminal devices can pay anytime

and anywhere in the third-party payment platform.

3. Analysis of the information security problems of the third-party payment platform in china

Combined with the actual operation of China's third-party payment platforms, the information security issues of third-party payment platforms mainly include the following four points:

First, the quality of third-party payment platforms is uneven, and the payment market is mixed. According to the third-party payment platform of market survey statistics, the current payment market without payment license is still active in the Internet financial payment platform, build the platform of enterprise itself comprehensive strength is relatively low, can put into the platform of technology and capital are very limited, so, the small, standardization of third-party payment platform itself does not have the ability to resist information security risks, the platform users vulnerable to information security threats.

Second, the risk of user information leakage is high[3]. Due to the current Chinese third-party payment platform has different business types, and to use the third-party payment platform is the need to use the corresponding platform to provide the account, therefore, users in different platforms for different business will need to register in multiple platforms repeatedly use account, frequent account registration behavior objectively increased the risk of user information leakage.

Third, the relevant legal system is not sound enough. The current China about the third-party payment platform information security laws and regulations for low legal documents or guidance, more of the constraints of the third-party payment platform is not high, just from the perspective of the macro regulation of the third-party payment platform, did not refine the platform of related responsibility, therefore, cannot achieve good control and management effect.

Fourth, users' own awareness of information security is insufficient. Most users in the use of third-party payment platform just want to quickly complete the payment behavior, does not pay attention to identify the normality of payment platform, set in the platform of login password is relatively simple, even often appear in different platforms to use the same password, it is easy to lead to users in inadvertently personal information leaked out.

4. How to improve the information security level of china's third-party payment platform

4.1 We will strengthen the technological construction of third-party payment platforms

The construction of the third-party payment platform is mainly based on all kinds of advanced technology to achieve, such as communication technology, computer information technology and information security technology, and so on, and users face information security risk are caused by various technical means, therefore, fundamentally, information security is a third-party payment platform and all kinds of information security risk on the technical level, platform its own technical level and the platform overall operation quality is closely related. From the perspective of the industry, the third-party payment platform is responsible for the information security of the platform on the one hand, and on the other hand, it is responsible for the public image and market reputation of the platform itself. Today's payment market has a lot of quality of intermingled third-party payment platform in providing a large number of users with daily payment services, therefore, to improve the level of third-party payment platform information security in China, we should strengthen the technical information security platform, promote the core competitiveness of the platform itself. First of all, the third-party payment platform should be for computer virus information security risk to build a systematic protection mechanism, so that can not only in the daily operation of the platform to prevent user information from computer virus threat, and can timely detect and eliminate the computer virus in the platform, so as to improve the platform of information security risk prevention ability.

Second, for the third-party payment platform database should use a variety of different security mechanism and the operation system to build database security protection system, the characteristics of compound security protection system can not only improve the security protection ability of platform database, and can effectively avoid the unforeseen accident in information damage or loss in the database[4]. Finally, the third-party payment platform must pay attention to use the encryption technology (such as data encryption, key encryption, etc.) to the user in the process of using data transmission encryption processing, pay attention to data information transmission security, and strengthen the user's account login verification, improve the accuracy of user authentication, strictly limit users to use public network login payment platform.

4.2 We will strengthen user information security protection

Third-party payment platform in the process of payment and settlement need to access the buyers and sellers of personal information and account information, involving user information, such as payment password, personal privacy, etc., and in the process if the user's information is leaked or account attack or even stolen, will make the interests of the user's interests suffered serious losses, thus affecting the normal safe operation of the third-party payment platform. Therefore, in order to improve the information security level of China's third-party payment platforms, the third-party payment platforms should strengthen the protection of user information security to ensure the security of users' personal information, relevant privacy and account information in the platform. Third-party payment platforms should also greatly increase the capital and technology investment in user information security protection, and strive to build a multi-level and all-round user information security guarantee mechanism, and build a solid defense line for users' personal information security.

4.3 We will improve regulations and regulations on information security for third-party payment platforms

Third-party payment platform information security system and regulations is the third-party payment platform enterprises to carry out information security control management work, is also the key basis of the third-party payment platform business behavior normative, especially in the payment market, only improve the third-party payment platform information security regulations, to promote the third-party payment platform pay attention to user information security, improve the overall level of third-party payment platform information security. At present, China's information security related systems and regulations are obvious deficiencies, and it is not clear about the legal responsibilities of information security of third-party payment platforms, which not only fails to play a practical and effective supervision and management effect, but also is not conducive to users to use legal weapons to protect their rights when their personal information security is infringed[5]. In order to improve the relevant systems and regulations of information security of third-party payment platforms, we should first enhance the status of relevant regulatory departments or institutions, so as to improve the legal rank of information security regulations, enhance the mandatory force of relevant systems and regulations, and strengthen the constraints on the operation behavior of third-party payment platforms. Second, can combine the actual situation of different regions to adjust measures to local conditions, meet the actual needs of the local system and regulations and local implementation, so not only can promote the third-party payment platform information security related regulations to the ground, also helps to improve the information security regulations overall comprehensiveness and perfection, from the legal level to ensure user information security.

4.4 Enhance user awareness of information security protection

Users' own awareness of information security protection is also an important factor affecting the information security level of third-party payment platforms. Improving users' information security protection awareness can encourage users to use the right way to use third-party payment platforms, to avoid users by fraudulent websites or criminals to steal personal information. Therefore, Third-party payment platforms should set up eye-catching security tips in the user interface and provide safe operation guidelines, Remind users to protect their personal privacy in the process of using the platform to pay, For example, in the interface that sets the payment password, The platform should force users to set highly complex passwords and prompt users not to set passwords consistent with personal disclosure information, If the user insists on setting the personal public information, such as personal birthday and personal phone number, to the password, or the password set is too simple, The third-party payment platform should not be approved, And again pop up a security alert to the user, In order to enhance users' awareness of information security protection, Let users and the platform work together to protect the information security of the third-party payment scene.

5. Conclusion

With the rapid development of e-commerce in China, more and more online financial transactions occur on the Internet. The role of trading media played by third-party payment platforms plays an increasingly important role in transaction payment. In the process of the rise of third-party payment platforms, Information security issues will also constantly arise. Not only seriously hindered the progress and development of third-party payment platforms but also harmful to the interests of the trader. Therefore, Third-party payment platforms must fully realize the importance of information security guarantee, carefully analyze and solve the problems of the platform in information security management, further strengthen the information security control, continuously improve the use security of third-party payment platforms, and let the third-party payment market to win more users' recognition and trust.

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